

BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268-0001

PERIODIC REPORTING
(PROPOSALS SIXTEEN THROUGH TWENTY)

Docket No. RM2012-2

RESPONSES OF THE UNITED STATES POSTAL SERVICE
TO CHAIRMAN'S INFORMATION REQUEST NO. 3
(February 15, 2012)

The Postal Service hereby provides its responses to Chairman's Information Request No. 3, issued on February 8, 2012. The responses are due today. Each question is stated verbatim and followed by the response.

The Postal Service notes that the request included two questions numbered 1, one for Proposal Sixteen and another for Proposal Twenty. For clarity, the Postal Service has renumbered the Proposal Twenty question as Question 4.

Respectfully submitted,

United STATES POSTAL SERVICE

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February 15, 2012

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Question 1 (Proposal Sixteen)

In Docket ACR2011, two FSS-related MODS operation codes are listed that were not included in the FSS productivity calculation for Proposal 16, Docket RM2012-2. These are MODS operation code 448 (FSS PHASE 2 PROTOTYPE) and 531 (FLATS SEQUENCING SYSTEM DELIVERY POINT SEQUENCE) filed in ACR2011 USPS-FY-11-7 (part1.xls "CPool Hrs by Ops&LDC-MODS" tab, code 448 is listed as having logged 46,167 labor hours and code 531, 427 labor hours).

- a. Please explain why these MODS operations data were not included in Proposal 16's FSS productivity calculation.
- b. MODS code 448 in ACR2011, USPS-FY11 is shown with two different names (part1.xls has "FSS PHASE II PROTOTYPE" and part2.xls has "UFSM1000 KEYING INCOMING SCHEME"). Please reconcile the names and provide rationale for including MODS operation code 448 labor hours in the FSM/1000 cost pool (rather than the FSS cost pool).
- c. Please provide operational definitions for MODS codes 448 and 531.

RESPONSE:

- a. MODS code 531 was omitted because in FY2010, it had no associated workload and negligibly low workhours (18 hours for FY2010). Its initial title was "FSS Operations" without specific reference to DPS mode. In FY2011, the operation was retitled "FSS DPS Mode" (same as 538). It still has no measured workload and few workhours—427 workhours, versus 2,682,816 workhours from operations 530 and 538 entering the Proposal Sixteen FSS productivity calculation. MODS operation 531 may be included in the Proposal Sixteen calculation without having a material effect on the FSS productivity.

MODS code 448 was omitted because the FSS productivity calculation in Proposal Sixteen is intended to represent FSS DPS activities in normal operation using currently deployed FSS production equipment. MODS code 448 was

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designated as a UFSM1000 operation ("UFSM1000 Keying Incoming Non-Scheme") in FY2010 and the first eleven months of FY2011. For those periods, operation 448 was not an FSS operation. Subsequently, operation 448 was redesignated for testing of a prototype FSS machine at a single plant. These data represent the beginning of a limited operational test.¹ As with any R&D effort, there is no guarantee that the test equipment will be adopted.

- b. As noted in the response to part (a), operation 448 was redesignated from "UFSM1000 Keying Incoming Non-Scheme" to "FSS Phase II Prototype" late in FY2011, and there were few workhours associated with the FSS operational test in FY2011. Operation 448 was left in the FSM/1000 cost pool for the entirety of FY2011 to avoid the need to modify a number of Cost Segment 3 processing steps to accommodate an intra-year change with no material effect on the composition of operations. However, the Postal Service expects to re-examine the cost pool assignment for MODS code 448 for FY2012.
- c. As of the end of FY2011, both MODS code 448 and 531 represent work activities of craft employees engaged in delivery point sequencing of flats on FSS sorters, similar to MODS code 538. Additionally, as noted above, MODS code 448 is designated as a TACS default code for LDC 12.

¹ Proposal Sixteen was originally developed using FY2010 MODS operation definitions. Under the "UFSM1000 Keying Non-Scheme" definition, operation 448 is not associated with any of the scheme-based UFSM1000 productivity groups in the Docket No. ACR2010 method. It appears that most of the workhours in MODS operation 448 in FY2011 result from the designation of operation 448 as a TACS default code for LDC 12. Approximately one percent of the operation 448 workhours in FY2011 represent the test of the prototype FSS Phase II equipment.

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Question 2 (Proposal Sixteen)

The table supporting calculations for Docket RM2012-2, ChIR No.1, question 5 (ChIR_No_1_5.xls) and the tab called "yr_scrub11_cutoffs" contain columns titled: Min, Max, Min Cutoff, and Max Cutoff.

- a. Please explain how these were calculated and specify how (or whether) these were used in the selection of observations for the productivity groups (worksheet tabs in ChIR_No_1_5.xls show differing counts of observations). Please provide a program and/or spreadsheet showing the methodology.

RESPONSE:

The columns Min, Max, Min Cutoff, and Max Cutoff are, respectively, the minimum, maximum, first percentile, and ninety-ninth percentile values of TPF/hour, calculated by facility and month for the indicated operation groups prior to eliminating observations the top and bottom one percent tails of the TPF/hour distribution. The elimination of observations in the one percent tails is equivalent to eliminating observations where TPF/hour is less than or equal to Min Cutoff, or TPF/hour is greater than or equal to Max Cutoff.

These calculations are performed in yr_scrub_prop17.tsp. Analogous calculations are performed in USPS-FY11-23, program yr_scrub.tsp for the Docket No. ACR2010 operation groups. The applicable code is as follows:

```
smpl 1 totsmpl ;
  smplif (rank.g <= minob.g) ;
    if (@nob > 0) ; then ;
      do ;
        msd(noprint) ratio.g ;
        copy @max min.gt ;
      enddo ;
    else ;
      set min.gt = 0.0 ;
    smpl 1 totsmpl ;
  smplif (rank.g > maxob.g) ;
```

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```
msd(noprint) ratio.g ;  
copy @min max.gt ;
```

The “msd” command is a TSP summary statistics procedure that computes statistics including the minimum and maximum values for the supplied observations. The first “msd” command in the code excerpt is calculated over the first percentile observations for each group, and produces Min and Min Cutoff. The second “msd” command is calculated over the top percentile observations for each group and produces Max and Max Cutoff.

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Question 3 (Proposal Sixteen)

In Docket ACR2011, LR USPS-FY11-23, three computer programs were filed related to Docket No. RM2012-2, Proposal 17 (loadscrub_prop17.tsp, modsprod_prop17.f, and yr_scrub_prop17.tsp). Collectively, these programs either compile, group or scrub the MODS data.

- a. The scrub program (yr_scrub_prop17.tsp) appears to rank the nonzero ratio observations and eliminate the top and bottom one percent. Please explain how the data were further screened to result in the 1,627 observations used for group eight's (Out BCS Secondary) productivity ratio.
- b. In the modsprod_prop17.f program, MODS operation code 282 DBCS/DIOSS ISS O/G Secondary work hours are aggregated into the larger Out BCS Secondary data prior to the scrub procedures. The MODS Handbook states that operation code 282 is the default code for employees who have not been assigned a base operation number and also that this operation receives TPH from the WebEOR. MODS operation code 282 work hours have increased substantially between FY 2008 and 2011 (FY2008: 4,872; FY2009: 250,284; FY2010: 712,031; and FY2011: 778,529). The latest TPH data available for operation code 282, filed in Docket No. N2010-1, did not show annual increases on the same scale as the work hours increases. Please explain the reasons for the work hour increases in MODS operation code 282 absent comparable percentage increases in TPH.
- c. Proposal Seventeen groups MODS operation code 282 with the Out BCS Secondary productivity data (group eight). There were a number of observations in the MODS10.zip data where Out BCS Secondary work hours were logged without accompanying volume/TPF data. Some facilities also reported no TPF volume for most or the entire year (See specific facilities identified as 28, 64, 68 and 71 group eight data). Please explain why there is missing volume data when the MODS Handbook states these operations receive volume (presumably automatic) from the WebEOR reports.

RESPONSE:

- a. Eliminating the observations comprising the top and bottom one percent tails of the distribution of TPF/hour is the final screening stage prior to computing the sums of screened MODS workhours and workloads reported in USPS-FY11-23, YRscrub2011.xls; there are no further or subsequent screening steps. The

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prior screening steps are described in the documentaiton of program YRscrub.tsp, ACR2011 folder USPS-FY-11-23, USPS-FY11-23.pdf at 9. See also Docket No. ACR2010, Reply Comments of the United States Postal Service at 4-5. In addition, observations from MODS operation 282 with positive workhours but zero workload are screened out prior to aggregation in the modspmod.f program in USPS-FY11-23 (and in the corresponding modspmod_prop17.f for Proposal Seventeen) to minimize potential bias in productivity groups where default operation codes may be assigned; see the response to part c, below, for further discussion. Note that Proposal Seventeen does not change screening procedures from previously accepted ACR methodology.

b. The increase in workhours for operation 282 is due to its use as a default operation code in TACS, beginning in FY 2009. The TPH workload is reported via the End-of-Run system by machines actually processing mail in outgoing secondary ISS mode. Outgoing secondary ISS mode processing is a relatively minor activity, and no operational change would have led to a corresponding increase in the quantity of mail actually receiving outgoing secondary ISS processing.

c. As noted in the response to part b, TPH and TPF workloads are reported to an operation when machines process mail in a corresponding processing mode. Corresponding workhours are based on clock rings in TACS. There is a potential for a mismatch of workhours and workloads to the extent employees are

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not clocked into the MODS operation corresponding to the distribution work being performed.

In the case of the outgoing secondary BCS group in Proposal Seventeen, and the outgoing ISS group in the ACR2010 methodology (to which MODS code 282 is assigned in the respective methods), the use of MODS operation 282 as a default code presents a possibility for downward bias of the productivities. The workhours assigned to operation 282 in its use as a default operation (“default workhours”) appear in the group where operation 282 is assigned—i.e., outgoing ISS in the ACR2011 method, or outgoing secondary BCS in Proposal Seventeen. Meanwhile, the corresponding workloads will appear in the operations corresponding to the equipment, modes, and/or distribution schemes where the employees were actually working.

One possibility, as noted in the question, is that there are workhours but zero workload in the group for a given observation, i.e. facility and month. The absence of workload from webEOR would indicate that there were no actual processing activities in the operations underlying the observation, so the workhours would by implication be “default workhours.” In such cases, group-level data screening is sufficient to identify the workhours as invalid (in that the actual work activities for the “default workhours” are unidentified) and to eliminate the data. However, it is also possible that the “default workhours” in operation 282 may be aggregated with data from other 3-digit MODS operations where both workload and workhours have been recorded. This is likely to result in anomalously low TPF/hour for such observations, and no group-level data

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screening would necessarily remove the observations to eliminate the downward bias. There is relatively little risk of bias to BCS productivity groups other than outgoing ISS or outgoing secondary BCS, since operation 282 "default workhours" are small relative to BCS workhours in the other groups. Thus, as described in part a, operation 282 is screened for cases with zero workload and positive workhours prior to aggregation, to identify and eliminate "default workhours" from the productivity calculations prior to possible "masking" by aggregation to groups.

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Question 4 (Proposal Twenty)

The mail processing cost of a handwritten reply mail piece serves as the benchmark for comparison to the mail processing costs for a QBRM reply piece to estimate the avoided cost of QBRM. However, the Postal Service's cost analysis is limited to costs incurred up to the point each QBRM piece receives its first sortation on a Bar Code Sorter (BCS).

Please refer to USPS-FY11-21.xls. The tabs 'QBRM flow' and 'HAND flow' show that 2.99 percent of QBRM reply pieces (Cell M42/ Cell F5 * 100) and 9.72 percent of handwritten reply mail pieces ((Cell J32+ Cell J37)/ Cell F5 * 100) go to outgoing manual operations from either Outgoing RBCS (for handwritten pieces) or from Outgoing Primary Auto (for QBRM).

The Postal Service's QBRM cost avoidance model assumes that automation pieces are finalized in the first sort. The figures in the table below reflect an additional assumption that the pieces rejected and sent to manual processing will require an Outgoing Primary Manual sort in order to be finalized.

Please see the table below.

New QBRM analysis			
a		Outgoing Primary Manual, cents per piece ¹	7.416
		<u>QBRM</u>	
b		Finalized in automation	97.01%
c		Rejected to manual processing	2.99%
d=(0*b)+(a*c)		Average cost of additional manual sort required to finalize	0.2
		<u>Hand</u>	
e		Finalized in automation	90.28%
f		Rejected to manual processing	9.72%
g=(0*e)+(a*f)		Average cost of additional manual sort required to finalize	0.7
h=g-d		Difference in manual sort costs required to finalize rejects	0.5
1/: USPS-FY11-10 FCM_LTRS.xls, tab BMM cost, cell K19			

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- a. Please explain how QBRM and handwritten reply mail pieces that are not successfully processed in an automated sort are finalized.
- b. Should the cost difference related to manually finalized reply pieces be included in the cost avoidance calculation? If not, why not?
- c. Please explain whether and how any of the assumptions above are problematic.

RESPONSE:

- a. Mail pieces that cannot be processed successfully on automation are processed in manual operations.
- b. No. The purpose of the QBRM analysis is to estimate the costs required to apply a barcode to a non-barcode handwritten reply mail piece.
- c. In addition to the FY10 version of the QBRM cost model filed in Docket No. R2012-2, Proposal 20, the Postal Service also filed a FY11 Proposal 20 version of the QBRM cost model in USPS-FY11-21. Both models rely upon input sub system (ISS) and output sub system (OSS) accept and upgrade rate data for handwritten mail that were collected in 1997 and filed in Docket No. R97-1, library reference USPS-H-130.

The USPS-H-130 accept and upgrade rates were developed using data from the 60-bin multi line optical character reader input sub system (MLOCR-ISS) and the 96-bin mail processing bar code sorter output sub system (MLOCR-OSS). Both types of equipment have since been retired. The ISS and OSS operations are now performed on delivery bar code sorters (DBCS) that are operating in either ISS or OSS mode. Furthermore, it is not possible to duplicate

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the USPS-H-130 analysis because of operational changes that have taken place since 1997.

When the 1997 study was conducted, the advanced facer canceler system (AFCS) made four primary separations: prebarcoded FIM A and C mail, nonbarcoded machine printed mail, nonbarcoded handwritten mail, and rejects. It was therefore possible to collect ISS and OSS accept and upgrade data specific to handwritten mail and machine printed mail.

Due to the technological improvements and decreasing single-piece mail volumes, the AFCS separations were changed several years ago. The four separations are now as follows: prebarcoded FIM A and C mail, nonbarcoded local mail (machine printed and handwritten combined), nonbarcoded nonlocal mail (machine printed and handwritten combined), and rejects. The only way that handwritten mail could be isolated in order to conduct a field study similar to that found in USPS-H-130 would be to manually cull it from the residual single-piece machine printed mail and process it on a DBCS in both ISS and OSS mode.

In Docket No. ACR2008, USPS-FY08-10, the Postal Service described a study in which webEOR data were used to update the automation density table and ISS / OSS acceptance and reject rates. These figures are currently used to estimate mail processing costs in the USPS-FY11-10 presort letters models. If the Commission determines that manual costs should be incorporated into the QBRM analysis, the Postal Service recommends that the USPS-FY08-10 acceptance and reject rates should be incorporated into the model so that more

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current data are relied upon and the analysis is similar in format to the presort letters mail processing cost models found in USPS-FY11-10.